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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,727	07/17/2003	Richard P. Wool	00131-00339-US	1581
23416	7590	06/09/2005	EXAMINER	
CONNOLLY BOVE LODGE & HUTZ, LLP P O BOX 2207 WILMINGTON, DE 19899			CHEUNG, WILLIAM K	
			ART UNIT	PAPER NUMBER
			1713	
DATE MAILED: 06/09/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/621,727

Applicant(s)

WOOL ET AL.

Examiner

William K. Cheung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6,11-14 and 16-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,11-14 and 16-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. The examiner acknowledges the receipt of Amendment after Final filed April 28, 2005, the amendment has been entered and claim 15 has been cancelled. Claims 1-4, 6, 11-14, 16-18 are pending.
2. In view of Amendment after Final filed April 28, the rejection of Claims 11-14, 16, 18 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wool et al. (US 6,121,398) is withdrawn. Further, in view of new rejection set forth in instant office action, the allowance of claims 1-4, 6, 15, 17 is withdrawn.
3. In view of new issues set forth in instant office action by the examiner, the instant office action has a status of "non-final".

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, 6, 11-14, 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Booth (US 2,059,930).

*The invention of claims 1-4, 6, 17 relates to a **low dielectric constant material** comprising a **plant oil** and **animal feathers** wherein said feather are **feather mats**.*

*The invention of claims 11-14, 16, 18 relates to a **low dielectric material** comprising a **plant oil** and **animal feathers** and the material has a **dielectric constant in the range of 1.7 to 2.7** measured at 25 °C and 100 Hz and said feathers are **feather mats**.*

Booth (page 1, first col., line 10-11) discloses that it is possible to use ordinary goose feathers in the shuttlecock. Booth (page 1, first col., line 46 to page 2, second col., line 4-9) discloses that shuttlecock comprises a wick containing olive oil or any oil that can be drawn through the quills and feathers by capillary attraction. Further, Booth (Figure 1-3) clearly discloses knitted feathers attached to cork fastened with a wick containing olive oil or any other oil.

Because applicants' specification fails to provide a meaning for what is considered a "mat", the examiner has a reasonable basis to use the plain meaning of

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the recited term “mat” from an English Dictionary. According to Merriam Webster’s Collegiate Dictionary, 10<sup>th</sup> Edition (page 716), “a mat” can be defined as “something made up of densely tangled or adhering strands esp. of organic matter”. Therefore, the examiner has a reasonable basis to believe that the claimed “feather mats” has been met by the disclosure to Booth.

Regarding the recited “soybean oil” of claim 2 and 12, Booth (page 1, first col., line 46 to page 2, second col., line 4-9) clearly discloses that any oil that can be drawn through the quills and feathers by capillary attraction can be used. Therefore, the examiner believes that the readily available “soybean oil” and have viscosity properties that are similar to those of olive should be capable of being drawn through the quills and feathers by capillary attraction. Therefore, the teachings of Booth does embrace the teaching of “soybean oil”.

Because material as disclosed in Booth is substantially identical to the composition as claimed, basically a plant oil and animal feathers, the examiner has a reasonable basis to believe that the claimed “low dielectric constant” feature of claim 1 and 11, and the insulator properties of claims 17 and 18 are inherently possessed in booth.

In view of the reasons set forth above, claims 1-4, 6, 11-14, 16-18 are anticipated.

**Conclusion**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K Cheung whose telephone number is (571) 272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William K. Cheung  
Primary Examiner

**WILLIAM K. CHEUNG  
PRIMARY EXAMINER**

June 6, 2005